SEQUENCE LISTING

```
<110> Unger, Evan C.
    <120> Charged Lipids and Uses For The Same
    <130> UNGR1592
    <140> 09/540,448
    <141> 2000-03-31
    <150> 08/925,353
    <151> 1997-09-08
    <160> 37
<170> PatentIn Ver. 2.1
    <210> 1
    <211> 5
    <212> PRT
    <213> Artificial Sequence
    <220>
    <223> Description of Artificial Sequence: Novel Sequence
   <220>
   <221> UNSURE
    <222> (4)
    <223> X is azetidine
    <400> 1
    Trp Tyr Gln Xaa Tyr
      1
    <210> 2
    <211> 12
    <212> PRT
    <213> Artificial Sequence
    <223> Description of Artificial Sequence: Novel Sequence
    <220>
    <221> UNSURE
    <222> (7)
    <223> X is azetidine
```

```
<400> 2
    Trp Pro Gly Trp Tyr Gln Xaa Tyr Ala Leu Pro Leu
    <210> 3
    <211> 14
    <212> PRT
    <213> Artificial Sequence
    <220>
    <223> Description of Artificial Sequence: Novel Sequence
    <220>
    <221> UNSURE
The the land that the state of
    <222> (9)
    <223> X is azetidine
    <400> 3
    Phe Glu Trp Pro Gly Trp Tyr Gln Xaa Tyr Ala Leu Pro Leu
      1
                        5
                                            10
1 5
    <210> 4
    <211> 4
ļ.
    <212> PRT
Į.
LT.
    <213> Artificial Sequence
Hard
Hard
    <220>
    <223> Description of Artificial Sequence: Novel Sequence
    <400> 4
    Arg Gly Asp Ser
     1
    <210> 5
    <211> 6
    <212> PRT
    <213> Artificial Sequence
  <220>
    <223> Description of Artificial Sequence: Novel Sequence
    <400> 5
    Gly Arg Gly Asp Ser Pro
```

```
<210> 6
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 6
Gly Pro Arg Pro
<210> 7
<211> 159
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 7
Asn Lys Leu Ile Val Arg Arg Gly Gln Ser Phe Tyr Val Gln Ile Asp
Phe Ser Arg Pro Tyr Asp Pro Arg Asp Leu Phe Arg Val Glu Tyr
             20
Val Ile Gly Arg Tyr Pro Gln Glu Asn Lys Gly Thr Tyr Ile Pro Val
                             40
Pro Ile Val Ser Glu Leu Gln Ser Gly Lys Trp Gly Ala Lys Ile Val
Met Arq Glu Asp Arg Ser Val Arg Leu Ser Ile Gln Ser Ser Pro Lys
                     70
                                          75
Cys Ile Val Gly Lys Phe Arg Met Tyr Val Ala Val Trp Thr Pro Tyr
                 85
                                      90
Gly Val Leu Arg Thr Ser Arg Asn Pro Glu Thr Asp Thr Tyr Ile Leu
                                                     110
            100
                                 105
Phe Asn Pro Trp Cys Glu Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys
        115
                             120
```

```
Glu Arg Glu Glu Tyr Val Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly
    130
                        135
Glu Val Asn Asp Ile Lys Thr Arg Ser Trp Ser Tyr Gly Gln Phe
                    150
                                         155
<210> 8
<211> 26
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<220>
<221> UNSURE
<222> (9)
<223> X is unknown
<400> 8
Asn Lys Leu Ile Val Arg Arg Gly Xaa Ser Phe Tyr Val Gln Ile Asp
Phe Ser Arg Pro Tyr Asp Pro Arg Arg Asp
<210> 9
<211> 41
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys Glu Arg Glu Glu Tyr Val
                                                          15
Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly Glu Val Asn Asp Ile Lys
             20
                                 25
Thr Arg Ser Trp Ser Tyr Gly Gln Phe
         35
```

<210> 10

```
<213> Artificial Sequence
      <220>
      <223> Description of Artificial Sequence: Novel Sequence
      <400> 10
      Ala Arg Arg Ser Ser Pro Ser Tyr Tyr
      <210> 11
      <211> 10
      <212> PRT
      <213> Artificial Sequence
      <220>
for the first of the time of the first
      <223> Description of Artificial Sequence: Novel Sequence
      <400> 11
      Gly Ala Gly Pro Tyr Tyr Ala Met Asp Tyr
                         5
        1
     <210> 12
 <211> 19
     <212> PRT
     <213> Artificial Sequence
 Hun.
     <220>
     <223> Description of Artificial Sequence: Novel Sequence
      <400> 12
      Arg Ser Pro Ser Tyr Tyr Arg Tyr Asp Gly Ala Gly Pro Tyr Tyr Ala
                                              10
                                                                   15
     Met Asp Tyr
      <210> 13
      <211> 21
      <212> PRT
      <213> Artificial Sequence
```

<211> 9 <212> PRT

<220>

<223> Description of Artificial Sequence: Novel Sequence

```
<400> 13
Ala Arg Arg Ser Pro Ser Tyr Tyr Arg Tyr Asp Gly Ala Gly Pro Tyr
Tyr Ala Met Asp Tyr
<210> 14
<211> 69
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<220>
<221> UNSURE
<222> (40)..(41)
<223> X is any amino acid
<400> 14
Gly Glu Glu Cys Asp Cys Gly Ser Pro Glu Asn Pro Cys Cys Asp Ala
Ala Thr Cys Lys Leu Arg Pro Gly Ala Gln Cys Ala Asp Gly Leu Cys
Cys Ala Gly Cys Arg Phe Lys Xaa Xaa Arg Thr Ile Cys Arg Arg Ala
          35
                                                  45
Arg Gly Asp Asn Pro Asp Asp Arg Cys Thr Gly Gln Ser Ala Asp Cys
     50
                          55
Pro Arg Asn Gly Tyr
 65
<210> 15
<211> 73
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
 <400> 15
```

```
Glu Ala Gly Glu Asp Cys Asp Cys Gly Ser Pro Ala Asn Pro Cys Cys
1 5 10 15
```

Asp Ala Ala Thr Cys Lys Leu Leu Pro Gly Ala Gln Cys Gly Glu Gly
20 25 30

Leu Cys Cys Asp Gln Cys Ser Phe Met Lys Lys Gly Thr Ile Cys Arg 35 40 45

Arg Ala Arg Gly Asp Asp Leu Asp Asp Tyr Cys Asp Gly Ile Ser Ala 50 55 60

Gly Cys Pro Arg Asn Pro Leu His Ala 65 70

<210> 16

<211> 68

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Novel Sequence

<400> 16

Glu Ala Gly Glu Glu Cys Asp Cys Gly Thr Pro Glu Asn Pro Cys Cys
1 5 10 15

Asp Ala Ala Thr Cys Lys Leu Arg Pro Gly Ala Gln Cys Ala Glu Gly
20 25 30

Leu Cys Cys Asp Gln Cys Arg Phe Lys Gly Ala Gly Lys Ile Cys Arg 35 40 45

Arg Ala Arg Gly Asp Asn Pro Asp Asp Cys Thr Gly Gln Ser Ala Asp 50 55 60

Cys Pro Arg Phe 65

<210> 17

<211> 70

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Novel Sequence

```
<220>
<221> UNSURE
<222> (40)..(41)
<223> X is any amino acid
<220>
<221> UNSURE
<222> (67)
<223> X is any amino acid
<400> 17
Gly Gly Glu Cys Asp Cys Gly Ser Pro Glu Asn Pro Cys Cys Asp Ala
                                      10
Ala Thr Cys Lys Leu Arg Pro Gly Ala Gln Cys Ala Asp Gly Leu Cys
             20
Cys Asp Gln Cys Arg Phe Lys Xaa Xaa Arg Thr Ile Cys Arg Ile Ala
Arg Gly Asp Phe Pro Asp Asp Arg Cys Thr Gly Leu Ser Ala Asp Cys
Pro Arg Xaa Asn Asp Leu
<210> 18
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 18
Arg Glu Tyr Val Val Met Trp Lys
<210> 19
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
```

```
<400> 19
Cys Arg Gly Asp Met Phe Gly Cys
<210> 20
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 20
Cys Arg Gly Asp Met Leu Arg Cys
<210> 21
<211> 8
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Novel Sequence
<400> 21
Cys Arg Gly Asp Phe Leu Asn Cys
                   5
<210> 22
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 22
Cys Asn Thr Leu Lys Gly Asp Cys
  1
                   5
<210> 23
<211> 8
<212> PRT
```

```
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 23
Cys Asn Trp Lys Arg Gly Asp Cys
<210> 24
<211> 5
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<220>
<221> UNSURE
<222> (5)
<223> X is penicillamine
<400> 24
Cys Arg Gly Asp Xaa
<210> 25
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 25
Leu Ser Pro Phe Pro Phe Asp Leu
                   5
<210> 26
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
```

```
<400> 26
Leu Ser Pro Phe Ala Phe Asp Leu
  1
<210> 27
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 27
Leu Ser Ala Phe Pro Phe Asp Leu
<210> 28
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 28
Leu Ser Pro Phe Pro Phe Asp Ala
  1
                  5
<210> 29
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
Ser Pro Phe Pro Phe Asp Leu Leu Leu
 1
                  5
<210> 30
<211> 8
<212> PRT
```

```
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 30
Gln Leu Ser Pro Ser Pro Asp Leu
                  5
<210> 31
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 31
Ser Ile Ile Asn Phe Glu Lys Leu
<210> 32
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 32
Leu Ser Pro Tyr Pro Phe Asp Leu
                   5
<210> 33
<211> 8
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Novel Sequence
<400> 33
Ala Ser Pro Phe Pro Phe Asp Leu
  1
```

```
<210> 34
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 34
Ser Ser Phe Gly Ala Phe Gly Ile Phe Pro Lys
                   5
<210> 35
<211> 16
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 35
Ala Asn Glu Arg Ala Asp Leu Ile Ala Tyr Leu Lys Gln Ala Thr Lys
                  5
<210> 36
<211> 17
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 36
Ala Asn Glu Arg Ala Asp Leu Ile Ala Tyr Leu Lys Gln Ala Thr Ala
                  5
                                      10
                                                          15
Lys
<210> 37
<211> 16
<212> PRT
<213> Artificial Sequence
```

<220> <223> Description of Artificial Sequence: Novel Sequence

<400> 37

Ala Asn Glu **Arg** Ala Asp Leu Ile Ala Tyr Leu Lys Gln Ala Ser Lys 1 5 10 15